IMPROVED ALKYLBENZENESULFONATES SURFACTANTS <u>ABSTRACT OF THE DISCLOSURE</u>

A surfactant composition comprising:

alkylarylsulfonate surfactant system comprising at least two isomers of the alkylarylsulfonate surfactant of the formula:

$$\begin{bmatrix} R' & R'' \\ L & SO_3 \end{bmatrix} \begin{bmatrix} M^{q+1} \\ R''' & SO_3 \end{bmatrix}$$

wherein:

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L is an acyclic aliphatic hydrocarbyl of from 6 to 18 carbon atoms in total; M is a cation or cation mixture and q is the valence thereof;

a and b are numbers selected such that said composition is electroneutral;

R' is selected from H and C₁ to C₃ alkyl;

R" is selected from H and C₁ to C₃ alkyl;

R'" is selected from H and C₁ to C₃ alkyl;

any of R' and R" is nonterminally attached to L and at least one of R' and R" is C₁ to C₃ alkyl; and

A is aryl; and

wherein:

said alkylarylsulfonate surfactant system comprises two or more isomers with respect to positions of attachment of R', R" and A to L;

in at least about 60% of said composition, A is attached to L in the position which is selected from positions alpha- and beta- to either of the two terminal carbon atoms thereof; and

wherein further said alkylarylsulfonate surfactant system has at least one (preferably both) of the following properties:

said alkylarylsulfonate surfactant system has a ratio of nonquaternary to quaternary carbon atoms in L of at least about 10:1 by weight, when said quaternary carbon atoms are present; and there is no more than 40% by weight loss as measured by Hardness Tolerance Test.